

4235.0 - Learning And Work, Australia, 2010-11

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ABOUT THIS PUBLICATION

This release presents results from the Australian Bureau of Statistics' (ABS) Learning and Work survey, conducted from July 2010 to June 2011 as part of the ABS Multipurpose Household Survey (MPHS). The survey collected data from individuals about their non-school qualification history including the level and field of each qualification and year of completion. Information was also collected on the impact of each qualification on a person's working life six months after completion and the relevance of the main field of study of each qualification to a person's current job. Another focus of the publication is the background characteristics of migrants, with data collected on Australian citizenship, language spoken at home, English proficiency, year of arrival, and level and field of highest non-school qualification before and after arrival in Australia. There are no time series data available as this is the first release of the topic.

This publication is comprised of the information presented within each of the tabs. A separate pdf version of this publication has not been produced. All tables are available in spreadsheet format from Downloads. A brief summary of the findings from the survey is included in the Summary tab. Information on the concepts and methods used in the survey,

reliability of the results, definitions and interpretation are included in the Explanatory Notes, Technical Note and Glossary. Differences between data items highlighted in the summary of findings are statistically significant (refer to the Significance Testing section of the Technical Note).

COMPARISONS WITH OTHER ABS EDUCATION AND TRAINING SOURCES

The ABS publishes education and training data from a range of sources, many with differing measurement methodologies, and this can produce different estimates. As such, caution should be exercised when making comparisons with other sources. For more information, see the Data Comparability section in the Explanatory Notes. Information about ABS activities in the field of education and training statistics is available from the Education and Training Topics @ a Glance web page.

ROUNDING

As estimates have been rounded, discrepancies may occur between the sum of component items and the published total. Published percentages are calculated prior to rounding and therefore some discrepancy may occur between these percentages and those that could be calculated from the rounded figures.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service.

Qualifications and the labour market



QUALIFICATIONS AND THE LABOUR MARKET

In 2010–11, 8.7 million of the 14.9 million people aged 15 to 64 years had a non-school qualification. The proportion of people with a non-school qualification increased from 51% in 2001 (Survey of Education and Training (SET) 2001 (cat. no. 6278.0)) to 59% in 2010–11. The proportion of people with two or more qualifications also rose from 18% in 2001 (SET 2001) to 20% in 2011. (Table 1) [Note that all references to qualifications in this e-magazine relate to non-school qualifications].

Almost two thirds (65%) of employed people held a qualification, compared with 45% of those who were unemployed and 38% of those who were not in the labour force. (Table 1)

Women employed full-time were more likely to have a qualification than those working part-time (72% compared with 61%). Similarly, two-thirds (67%) of men employed full-time held a qualification compared with less than half (47%) of those employed part-time. (Table 1)

The unemployment rate for people with a qualification was lower than for people without a qualification (3.4% compared with 7.3%). (Table 1)

Impact of qualification



IMPACT OF QUALIFICATION

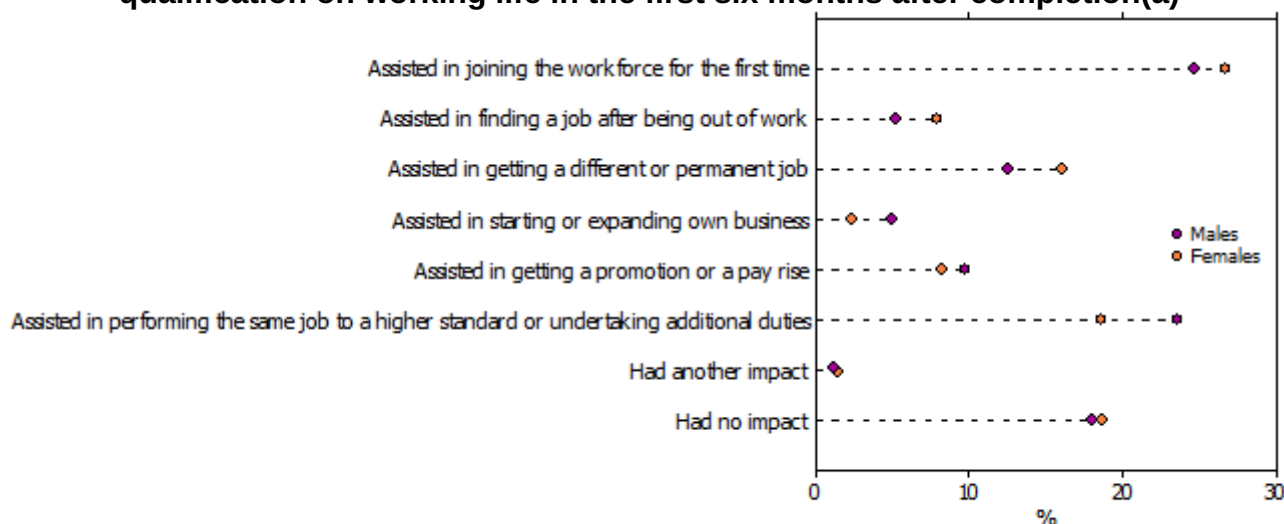
When asked about the main impact of their highest qualification on their working life in the first six months after completion, about one quarter (26%) of people believed it assisted them in joining the work force for the first time, while 21% stated it assisted them in performing the same job to a higher standard or undertaking additional duties. Almost one-fifth (18%) of people believed their highest qualification had no impact. (Table 3)

Men were more likely than women to state that the main impact of their highest qualification was that it assisted them in performing the same job to a higher standard or undertaking additional duties (24% compared with 19%) or it assisted them in starting or expanding their own business (5.0% compared with 2.3%). Conversely, women were more likely than men to believe that their highest qualification assisted them in getting a different or permanent job (16% compared with 13%) or it had assisted them in finding a job after being out of work (7.9% compared with 5.2%). (Table 3)

People who attained their highest qualification after 2006 were more than twice as likely as those who attained their highest qualification before 1991 to believe their highest qualification had no impact on their working life in the first six months after completion (29% compared with 12%). The proportion of people who stated the main impact of their highest qualification was that it had assisted them to join the workforce for the first time was higher for people who attained their qualification before 1991 compared with people who attained their qualification after 2006 (38% compared with 12%). (Table 3)

Almost one third (30%) of people with more than one qualification stated that the main impact of their most recent qualification was that it had assisted them in performing the same job to a higher standard or undertaking additional duties, 19% stated it had assisted them in getting a different or permanent job, and 11% believed it assisted in getting a promotion or a pay rise. One in five (20%) people with more than one qualification stated their most recent qualification had no impact. (Table 5)

PERSONS AGED 15–64 YEARS WITH A QUALIFICATION, Main impact of highest qualification on working life in the first six months after completion(a)



(a) refer to Table 3

Relevance of qualification



RELEVANCE OF QUALIFICATION

In 2010–11, of the 11.2 million people who were employed, 65% had a qualification while 35% did not. About four out of ten employed people (41%) worked in the same field as their highest qualification and an additional 10% of people not working in the same field described their highest qualification as highly relevant or relevant to their current job. (Table 6)

In this section the term "relevant" refers to where people stated they currently work in the same field as their highest qualification or, if not working in the same field, stated their highest qualification was still highly relevant or relevant to their current job. For example, Table 11 shows 41% of Managers currently work in the same field as their highest qualification and 17% described their highest qualification as still highly relevant or relevant to their current job although not working in the same field. Therefore, 58% of Managers (including those without a qualification) reported their highest qualification as being relevant to their current job.

Six out of ten employed people in the 25–34 year age group (60%) and a similar proportion of those in the 35–44 year age group (58%) were currently employed in a job relevant to the main field of study of their highest qualification. In comparison, 49% of employed people aged 55–64 years worked in a job where their highest qualification was relevant. (Table 8)

In 2010–11, 14% of all employed people worked in a job where their highest qualification was not at all relevant. Of the 1.6 million people who believed their highest qualification was not at all relevant to their current job, 29% stated that they were no longer interested in the field of their qualification, 20% said they were comfortable in their current job and 20% said that there was a lack of available positions in their field. (Table 8)

Almost nine out of ten (88%) employed people whose highest qualification was a postgraduate award, such as a Doctorate, Masters degree or Graduate Diploma/Graduate Certificate, reported their qualification was relevant to their current job, compared with 72% of people whose highest qualification was Certificate I/II. (Table 9)

People employed in the Education and training industry (80%), Health care and social assistance (74%) and Professional, scientific and technical services (73%) were most likely to be employed in a job relevant to their highest qualification. (Table 10)

Of all people employed in Professional occupations, 84% worked in a job where their highest qualification was relevant, a higher rate than those employed in any other occupation. In contrast, 16% of Machinery operators and drivers worked in a job where their highest qualification was relevant. However, 62% of all Machinery operators and drivers did not have a qualification. (Table 11)

EMPLOYED PERSONS AGED 15–64 YEARS, Relevance of main field of highest qualification to current job by occupation(a)



Migrants



MIGRANTS

Two thirds (66%) of all migrants aged 15–64 years in 2010–11 had a qualification compared with 56% of those born in Australia. (Table 1)

In this section the term "adult migrants" refers to people aged 15–64 years at the time of the survey who were at least 15 years of age when they arrived in Australia.

The proportion of adult migrants who held no qualification on arrival decreased from 64% for those who arrived before 1991 to 37% for those arriving after 2006. The proportion of adult migrants who had a Bachelor degree or higher on arrival has increased from 15% of people who migrated before 1991 to 44% of those who migrated after 2006. (Table 12.1)

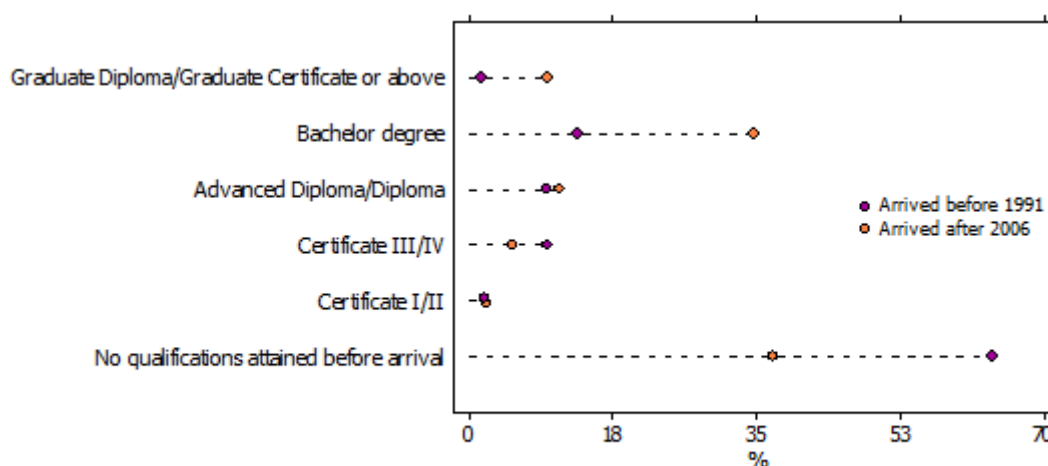
Almost one third of adult migrants (32%) attained a qualification after arrival in Australia. (Table 12.2)

Adult migrants who arrived after 2006 were more likely than those who arrived before 1991 to have a Bachelor degree as their highest qualification (34% compared with 18%). Conversely, adult migrants who arrived before 1991 were more likely than those who arrived after 2006 to have a Certificate III/IV as their highest qualification (14% compared with 7.5%). (Table 12.3)

Adult migrants who arrived in or after 2001 were more likely than those arriving before 2001 to have their highest qualification in the fields of Management and commerce (23% compared with 17%) and Information technology (6.2% compared with 2.7%). The proportion of adult migrants with their highest qualification in Engineering and related technologies showed no significant change (10.9% for migrants arriving before 2001 compared with 10.3% for those arriving in or after 2001) as was the case for the remaining fields. (Table 13)

More than one half (57%) of adult migrants stated their highest qualification was relevant to their current job. (Table 14.3)

MIGRANTS AGED 15–64 YEARS WHO WERE AT LEAST 15 YEARS OLD ON ARRIVAL, Level of highest qualification attained before arrival by year of arrival(a)



(a) refer to Table 12.1

About this Release

This publication presents detailed information about the educational history of people aged 15 years and over and its impact on and relevance to their working lives. Data collected includes the level and field of each qualification, year of completion and whether the qualification was attained in Australia. Further information was collected on the relevance of each qualification to a person's current job, the impact on working life in the first six months after completion and cultural background. This information cross referenced with the Multipurpose Household Survey (MPHS) core modules of demographic characteristics, labour force participation and income provides an in-depth understanding of the impact of non-school qualifications on working life.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 The statistics presented in this publication were compiled from data collected on Learning and Work through the Australian Bureau of Statistics' (ABS) 2010–11 Multipurpose Household Survey (MPHS). The MPHS is conducted each financial year throughout Australia from July to June as a supplement to the ABS' monthly Labour Force Survey (LFS) and is designed to provide annual statistics for a number of small, self-contained topics.

2 In 2010–11 the topics were:

- Crime victimisation

- Learning and work history
- Cultural participation
- Household use of information technology
- Patient experience
- Barriers and incentives to labour force participation
- Retirement and retirement intentions.

3 For all topics, general demographic information such as age, sex, labour force characteristics, education and income are also available.

4 This publication presents details from individuals about their non-school qualification history including the level and field of each qualification and year of completion. Information was also collected on the impact of each qualification on a person's working life six months after completion and the relevance of the main field of study of each qualification to a person's current job. Another focus of the publication is the characteristics of migrants, with data collected on Australian citizenship, language spoken at home, English proficiency, year of arrival, and level and field of highest non-school qualification before and after arrival in Australia. There are no time series data available as this is the first release of the topic. Note that any reference to qualifications in this publication relates to non-school qualifications.

5 It is expected that Learning and Work data will again being collected in the MPHS for the reference period 2014–15.

SCOPE

6 The scope of the LFS is restricted to people aged 15 years and over and excludes the following:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments, customarily excluded from census and estimated resident populations
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants).

7 In addition, the 2010–11 MPHS excluded the following from its scope:

- people living in very remote parts of Australia
- people living in non-private dwellings such as hotels, university residences, students at boarding schools, patients in hospitals, residents of homes, (e.g. retirement homes, homes for persons with disabilities, women's shelters), and inmates of prisons.

8 As indicated above, the scope of the 2010–11 MPHS excluded persons living in very remote parts of Australia. The exclusion of people living in these areas is unlikely to impact on state and territory estimates, except in the Northern Territory where they account for approximately 23% of the total population.

COVERAGE

9 The coverage of the 2010–11 MPHS was the same as the scope, except that persons living in Indigenous communities in non-very remote areas were not covered for operational reasons.

10 In the LFS, rules are applied which aim to ensure that each person in coverage is

associated with only one dwelling and hence has only one chance of selection in the survey. See Labour Force, Australia (cat. no. 6202.0) for more details.

DATA COLLECTION

11 The MPHS was conducted as a supplement to the monthly LFS. Each month one eighth of the dwellings in the LFS sample were rotated out of the survey. Generally, around 80% of these dwellings were then selected for the MPHS each month. In these dwellings, after the LFS had been fully completed for each person in scope and coverage, a person aged 15 years or over was selected at random (based on a computer algorithm) and asked the various MPHS topic questions in a personal interview. If the randomly selected person was aged 15–17 years, permission was sought from a parent or guardian before conducting the interview. If permission was not given, the parent or guardian was asked the Learning and Work history questions on behalf of the 15–17 year old. Data was collected using Computer Assisted Interviewing (CAI), whereby responses were recorded directly onto an electronic questionnaire in a notebook computer, usually during a telephone interview.

12 For the 2010–11 MPHS, the sample was accumulated over a 12 month period from July 2010 to June 2011.

13 The publication Labour Force, Australia (cat. no. 6202.0) contains definitions of demographic and labour force characteristics, and information about telephone interviewing that is relevant to both the monthly LFS and MPHS.

SAMPLE SIZE

14 The sample size may vary for different topics in the MPHS. The initial sample for the Learning and Work topic was 20,121 private dwellings, from which one person was randomly selected. Of the 17,198 private dwellings that remained in the survey after sample loss (for example, dwellings selected in the survey which had no residents in scope for the LFS, vacant or derelict dwellings and dwellings under construction), 13,366 or 78% fully responded to the questions on Learning and Work.

ESTIMATION METHOD

Weighting

15 Weighting is the process of adjusting results from a sample survey to infer results for the total in-scope population. To do this, a 'weight' is allocated to each sample unit, which, for the MPHS can be either a person or a household. The weight is a value which indicates how many population units are represented by the sample unit. For the MPHS, the first step in calculating weights for each unit was to assign an initial weight, which is the inverse of the probability of being selected in the survey. For example, if the probability of a person being selected in the survey was 1 in 600, then the person would have an initial weight of 600 (i.e. they represent 600 people).

Benchmarking

16 The initial weights were then calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks', in designated categories of age by sex by area of usual residence. Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population rather than the distribution within the sample itself. Calibration to population benchmarks helps to compensate for over or under-enumeration of particular categories of persons/ households which may occur due to either the random nature of sampling or non-response.

17 For person estimates, the MPHS was benchmarked to the projected population in each state and territory, excluding the population living in very remote areas of Australia, at 31 March 2011. For household estimates, the MPHS was benchmarked to independently calculated estimates of the total number of households in Australia. The MPHS estimates do not (and are not intended to) match estimates for the total Australian person/household populations obtained from other sources (which may include persons living in very remote parts of Australia).

Estimation

18 Survey estimates of counts of persons or households are obtained by summing the weights of persons or households with the characteristic of interest. Estimates of non-person counts (e.g. number of qualifications) are obtained by multiplying the characteristic of interest with the weight of the reporting person/household and then aggregating them.

RELIABILITY OF ESTIMATES

19 All sample surveys are subject to error which can be broadly categorised as either:

- sampling error
- non-sampling error.

Sampling error

20 Sampling error is the difference between the published estimates, derived from a sample of persons, and the value that would have been produced if the total population (as defined for the scope of the survey) had been included in the survey. For more information refer to the Technical Note.

Non-sampling error

21 Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing data. Every effort is made to reduce non-sampling error by careful design and testing of questionnaires, training and supervision of interviewers, and extensive editing and quality control procedures at all stages of data processing.

DATA QUALITY

INTERPRETATION OF RESULTS

22 Information collected in this survey is self-reported by respondents and hence may differ from that which might be obtained from other sources or via other methodologies. This factor should be taken into consideration when interpreting the estimates in this publication and when making comparisons with other data sources.

23 The tables about migrants (Tables 12–14) refer to people who were in the 15–64 year age range at the time of the survey and were at least 15 years of age when they arrived in Australia. Consequently, these tables exclude all migrants who were under 15 years of age on arrival (regardless of their age at the time of the survey) and those migrants who were both 15 years or over on arrival AND over 64 years of age at the time of the survey. For example, those migrants who were aged 44 years on arrival and arrived during the period

1991–2011 were in the 44–64 year age range at the time of the survey and therefore included in the data. Those migrants aged 44 years on arrival who arrived prior to 1991 were aged 65 years or over at the time of the survey and are consequently excluded from these data.

24 In addition, when considering the tables about migrants, it is important to note that they focus only on the highest qualification completed at particular periods or points in time (i.e. before arrival in Australia, after arrival and at the time of the survey). As a result, the total number of migrants with a qualification at the time of the survey is not the addition of migrants with a qualification before arrival and migrants with a qualification after arrival. For example, a migrant may have a highest qualification of a Bachelor degree before arrival in Australia (Table 12.1), and then have attained a highest qualification of a Certificate IV after arrival (Table 12.2). This means that in Table 12.3, showing the highest qualification at the time of the survey, the migrant will only be counted once, as overall, their highest qualification is the Bachelor degree. The total number of migrants aged 15–64 years with a qualification at the time of the survey is shown in Table 1.

25 The same concepts also apply to Tables 14.1 (before arrival), 14.2 (after arrival) and 14.3 (at the time of the survey) which focus on employed migrants. In addition, in Tables 14.1, 14.2 and 14.3, persons 'without a qualification' has a different meaning for each table. In Table 14.1, 'without a qualification' includes all migrants who have never attained a qualification and migrants who did not attain a qualification before arrival but attained a qualification after arrival. In Table 14.2, it includes all migrants who have never attained a qualification and migrants who did not attain a qualification after arrival but attained a qualification before arrival, and in Table 14.3, it includes all migrants who have never attained a qualification at the time of the survey.

26 Consequently, all tables about migrants must be considered separately.

27 If the year of arrival and the year the qualification was completed was the same, then the qualification was considered to have been completed after arrival in Australia.

DATA COMPARABILITY

28 The 2010–11 Learning and Work publication is the first issue of this publication; however, some comparisons can be made with other selected education and training publications.

Comparability with Adult Learning, 2006–07 MPHS

29 In the 2006–07 MPHS, an education and training topic was included, called Adult Learning (cat. no. 4229.0), which collected information about the recent learning experiences (including formal qualifications, non-formal training and informal learning) of people aged 25–64 years. The sample for Adult Learning was restricted to this age range to exclude people who were in the initial stages of education (to align with the European Adult Learning Survey). In the 2010–11 MPHS, the Learning and Work topic focused only on formal non-school qualifications, including qualification history, the impact of the qualifications on the respondent's working life and the relevance of the qualifications to the respondent's current occupation/industry. Due to the change in focus and the lack of similar data items, comparisons cannot be made between the two surveys.

Comparability with other education and training surveys

30 The Survey of Education and Training (SET) (cat. no. 6278.0) and the Survey of Education and Work (SEW) (cat. no. 6227.0) have some similarities with Learning and Work. Conducted annually, the SEW provides a range of indicators about educational

participation and attainment, and data on people's transition between education and work. The SET is conducted every four years and provides data on the level and outcomes of an individual's education and training and also provides a more extensive education history. Similar to Learning and Work, the SET is based on a personal interview with those respondents selected in the survey. On the other hand, SEW is based on a household interview with any responsible adult who responds on behalf of all persons in scope in the household. For the SEW, there were 30,400 completed interviews in May 2009 while the SET had 23,800 completed interviews in the survey period from March to June 2009. Learning and Work has a smaller sample size with 13,366 completed interviews.

31 Most of the content included in the Learning and Work topic is similar to that collected in the SET. The additional information available from Learning and Work covers the relevance of the main field of study of the respondent's qualification(s) to their current job and whether the qualifications were completed in Australia. Most of the content included in Learning and Work is different to the content included in SEW.

32 Care should be taken when comparing data from different surveys that relate to education and training issues, due to the different scopes, definitions and methodologies used.

Comparability with monthly LFS Statistics

33 Due to differences in the scope and sample size of the MPHS and that of the LFS, the estimation procedure may lead to some small variations between labour force estimates from this survey and those obtained from the LFS.

Other methodological issues

34 In the interpretation of the results of the 2010–11 survey, consideration should be given to the representativeness of the sample. This is affected by the response rate and also the fact that the survey covers only people living in private dwellings.

CLASSIFICATIONS

35 Country of birth data are classified according to the Standard Australian Classification of Countries (Second Edition) (cat. no. 1269.0).

36 Industry data are classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (cat. no. 1292.0)

37 Occupation data are classified according to the Australian and New Zealand Standard Classification of Occupations, First Edition, 2006 (ANZSCO) (cat. no. 1220.0)

38 Education data are coded to the Australian Standard Classification of Education (ASCED), 2001 (cat. no. 1272.0). The ASCED is a national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education. The ASCED comprises two classifications: Level of Education and Field of Education.

39 Level of Education is defined as a function of the quality and quantity of learning involved in an educational activity. There are nine broad levels, 15 narrow levels and 64 detailed levels. For detailed definitions of these levels see the Australian Standard Classification of Education (ASCED), 2001 (cat. no. 1272.0). Level of Education is only output at the broad level for the Learning and Work topic.

40 Field of Education is defined as the subject matter of an educational activity. Fields of education are related to each other through the similarity of subject matter, through the broad purpose for which the education is undertaken, and through the theoretical content which underpins the subject matter. There are 12 broad fields, 71 narrow fields and 356 detailed fields. For detailed definitions of these fields see the Australian Standard Classification of Education (ASCED), 2001 (cat. no. 1272.0). Field of Education is only output at the broad level for the Learning and Work topic.

LEVEL OF HIGHEST EDUCATIONAL ATTAINMENT

41 Level of highest educational attainment was derived from information on highest year of school completed and level of highest non-school qualification. The derivation process determines which of the 'non-school' or 'school' attainments is regarded as the highest. Usually the higher ranking attainment is self-evident, but in some cases some secondary education is regarded, for the purposes of obtaining a single measure, as higher than some certificate level attainments.

42 The following decision table is used to determine which of the responses to questions on highest year of school completed (coded to ASCED Broad Level 6) and level of highest non-school qualification (coded to ASCED Broad Level 5) is regarded as the highest. It is emphasised that this table was designed for the purpose of obtaining a single value for level of highest educational attainment and is not intended to convey any other ordinality.

Decision Table: Level of Highest Educational Attainment (ASCED level of education codes)							
Highest year of school completed	Level of highest non-school qualification						
	Certificate n.f.d. (500)	Certificate III or IV n.f.d. (510)	Certificate IV (511)	Certificate III (514)	Certificate I or II n.f.d. (520)	Certificate II (521)	Certificate I (524)
Secondary Education n.f.d. (600)	Secondary Education n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Senior Secondary Education n.f.d. (610)	Senior Secondary n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Senior Secondary n.f.d.	Senior Secondary n.f.d.	Senior Secondary n.f.d.
Year 12 (611)	Year 12	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 12	Year 12	Year 12
Year 11 (612)	Year 11	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 11	Year 11	Year 11
Junior Secondary Education n.f.d. (620)	Junior Secondary Education n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 10 (621)	Year 10	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 10	Year 10	Year 10
Year 9 (622)	Year 9	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 8 (623)	Year 8	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 7 (624)	Year 7	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I

43 The decision table is also used to rank the information provided in a survey about the qualifications and attainments of a single individual. It does not represent any basis for comparison between differing qualifications. For example, a person whose highest year of

school completed was Year 12, and whose level of highest non-school qualification was a Certificate III, would have those responses crosschecked on the decision table and would as a result have their level of highest educational attainment output as Certificate III. However, if the same person answered 'certificate' to the highest non-school qualification question, without any further detail, it would be crosschecked against Year 12 on the decision table as Certificate not further defined. The output would then be Year 12. The decision table, therefore, does not necessarily imply that one qualification is 'higher' than the other. For more details, see Education Variables, 2002 (cat. no. 1246.0).

PRODUCTS AND SERVICES

Spreadsheets

44 All tables, in Excel spreadsheet format, can be accessed from Downloads. The spreadsheets present tables of estimates and proportions, and their corresponding relative standard errors (RSEs).

Microdata record file

45 In addition to the data available in the Excel spreadsheets, other tables will be able to be produced using Survey TableBuilder (STB). STB is an online tool for creating tables and graphs from survey data. STB for the 2010–11 Learning and Work topic is expected to be available in mid 2012. General information about this new product, including cost, can be found on the About Survey TableBuilder page.

46 A Confidentialised Unit Record File for the 2010–11 Learning and Work topic will not be available.

Data available on request

47 A further option for accessing data from the Learning and Work component of the MPHS is to contact the National Information and Referral Service. A range of additional data not provided in the standard spreadsheets may be provided on a fee-for-service basis. A spreadsheet containing a complete list of the data items available for the Learning and Work topic can be accessed from Downloads.

ACKNOWLEDGEMENTS

48 ABS surveys draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated. Without it the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the Census and Statistics Act 1905.

RELATED PUBLICATIONS

49 A wide range of information about Education and Training statistics can be found on the ABS Education and Training Topics @ a Glance web page. This page includes information on current and upcoming projects, links to recent education and training publications and resources, and information about current issues in the education and training sector.

50 The Related Information tab associated with this release contains links to a selected range of ABS Education and Training publications.

Glossary

GLOSSARY

Adult migrants

Migrants aged 15–64 years at the time of the survey who were at least 15 years of age when they arrived in Australia. Excludes all migrants who were under 15 years of age on arrival (regardless of their age at the time of the survey) and those migrants who were both 15 years or over on arrival AND over 64 years of age at the time of the survey.

After arrival

Any qualification(s) completed by a migrant in the same year as their arrival in Australia as well as any qualification(s) completed in subsequent years. See also Before arrival.

Balance of state/territory

Comprises people usually resident in areas outside of the eight capital city Statistical Divisions (as defined in the Australian Standard Geographical Classification (ASGC) (cat. no. 1216.0)). Balance of state/territory does not include any residents of the Australian Capital Territory (ACT).

Before arrival

Any qualification(s) completed by a migrant in any year prior to the year of their arrival in Australia. See also After arrival.

Capital city

Comprises people usually resident in areas within the eight capital city Statistical Divisions (as defined in the Australian Standard Geographical Classification (ASGC) (cat. no. 1216.0)). Includes all residents of the ACT.

Completed qualification

The completion of all academic requirements for the conferring of an award from an institution. See also Qualification.

Completion in Australia

If the person studied for the qualification overseas via correspondence with an Australian educational institution, then the qualification is said to have been completed in Australia. If the person studied for the qualification in Australia by correspondence with an overseas educational institution, then the qualification is said to have been completed overseas.

Employed

All people aged 15 years and over who, during the week prior to interview:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers)
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers)
- were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week
 - away from work for more than four weeks up to the end of the reference week

and received pay for some or all of the four week period to the end of the reference week

- away from work as a standard work or shift arrangement
 - on strike or locked out
 - on workers' compensation and expected to return to their job, or
- were employers or own account workers, who had a job, business or farm, but were not at work.

Employed full-time

Employed persons who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

Employed part-time

Employed persons who usually worked less than 35 hours or more a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

Labour force status

A classification of the civilian population aged 15 years and over into employed, unemployed or not in the labour force, as defined. The definitions conform closely to the international standard definitions adopted by the International Conferences of Labour Statisticians.

Level of highest educational attainment

Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is not a measurement of the relative importance of different fields of study but a ranking of qualifications and other educational attainments regardless of the particular area of study or the type of institution in which the study was undertaken. See the Level of Highest Educational Attainment section in the Explanatory Notes for further details on how the highest level is derived.

Non-school qualification

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include qualifications at the Postgraduate degree level, Graduate Diploma and Graduate certificate level, Bachelor degree level, Advanced Diploma and Diploma level, and Certificates I, II, III and IV levels. Non-school qualifications may be attained concurrently with school qualifications. See also Qualification.

Not in labour force

For any group, the labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

Participation rate

Persons who were not in the categories 'employed' or 'unemployed' (as defined).

Qualification

Formal certification, issued by a relevant approved body, in recognition that a person has achieved an appropriate level of learning outcomes or competencies relevant to identified individual, professional, industry or community needs. Statements of attainment awarded for

partial completion of a course of study at a particular level are excluded. Also referred to as non-school qualifications for the purposes of this release.

Unemployed

People aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week, or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

Unemployment rate

For any group, the number of unemployed persons expressed as a percentage of the labour force in the same group.

Abbreviations

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ASCED	Australian Standard Classification of Education
BSD	Brisbane Statistical Division
LFS	Labour Force Survey
MPHS	Multipurpose Household Survey
n.f.d.	not further defined
RSE	relative standard error
SE	standard error
SET	Survey of Education and Training
SEW	Survey of Education and Work
STB	Survey TableBuilder

Quality Declaration - Summary

QUALITY DECLARATION - SUMMARY

INSTITUTIONAL ENVIRONMENT

TableBuilder files are released in accordance with the conditions specified in the Statistics Determination section of the Census and Statistics Act 1905 (CSA). This ensures that confidentiality is maintained whilst enabling micro level data to be released. More information on the confidentiality practices associated with TableBuilder can be found on the Confidentiality page.

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

RELEVANCE

Data on Learning and Work were collected as part of the 2010–11 Multipurpose Household Survey (MPHS). The MPHS is a supplement to the monthly Labour Force Survey (LFS) and is designed to collect annual statistics on a small number of self-contained topics. The scope of the LFS is restricted to people aged 15 years and over, and excludes members of the permanent defence forces; certain diplomatic personnel of overseas governments usually excluded from census and estimated resident populations; overseas residents in Australia; and members of non-Australian defence forces (and their dependents). Refer to Labour Force, Australia (cat. no. 6202.0) for further information regarding the LFS. In addition, the 2010–11 MPHS excluded people living in very remote parts of Australia and people living in non-private dwellings such as hotels, university residences, students at boarding schools, patients in hospitals, inmates of prisons and residents of other institutions (e.g. retirement homes, homes for people with disabilities).

Microdata from the Learning and Work component of the MPHS are available in TableBuilder. Respondents were asked questions regarding their non-school qualification history. The type of information collected included the level and field of each qualification, year of completion and whether the qualification was completed in Australia. Data was also collected on the impact of each qualification on the person's working life in the first six months after completion, the relevance of each qualification to a person's current job as well as information about their cultural background. The data was collected from one person selected at random in each selected household.

For more information, see Microdata: Learning and Work, Australia, 2010–11 (cat. no. 4235.0.55.001).

TIMELINESS

The MPHS is an annual survey with enumeration undertaken over the financial year period from July to June. The Learning and Work topic was collected for the first time using the MPHS in 2010-11 and is scheduled to be repeated in 2014–15. Data from the Learning and Work topic (in the form of html and data cubes) were released on 21 February 2012. Microdata in the form of a TableBuilder file is expected to be released within 24 months of the completion of enumeration.

ACCURACY

The microdata contains finer levels of detail than has been released in other formats, such as in Learning and Work, Australia, 2010–11 (cat. no. 4235.0). For more information on the level of detail provided, please see the associated data item lists.

Steps are taken to confidentialise the data made available on TableBuilder in such a way as to maximise the usefulness of the content while maintaining the confidentiality of respondents selected in the survey. As a result it may not be possible to exactly reconcile all the statistics produced from the microdata with other published statistics. Further information about the steps taken to confidentialise the microdata is available through the following link:

TableBuilder confidentiality

COHERENCE

While the 2010-11 MPHS Learning and Work topic evolved from the 2006-07 MPHS Adult

Learning module, there is sufficient difference between the two to make comparisons inappropriate. The most recent survey focused only on formal non-school qualifications, while the Adult Learning module collected information about the recent learning experiences (including formal qualifications, non-formal training and informal learning) of people aged 25–64. The Adult Learning topic was restricted to this age group to exclude people who were in the initial stages of education (to align with the European Adult Learning Survey). Learning and Work also includes information about the impact of qualifications on labour market outcomes and the relevance of qualifications to an individual's current job.

Data on educational participation are also collected through the Survey of Education and Training (SET) and the Survey of Education and Work (SEW). Most of the content included in the MPHS Learning and Work topic is similar to that collected in the 2009 SET. The additional information available from the Learning and Work topic covers the relevance of the main field of study of the respondent's qualifications to their current job and whether the qualifications were completed in Australia. By contrast, most of the content included in Learning and Work is different to the content included in SEW.

Care should be taken when comparing data from different surveys that relate to education and training issues, due to the different scopes, definitions and methodologies used.

The Explanatory Notes section of Learning and Work, Australia, 2010–11 (cat. no. 4235.0) provides more detailed information on the differences between the ABS Education surveys over time.

INTERPRETABILITY

The information within this product should be referred to when using the microdata. It contains information including Survey methodology, File structure, Using the TableBuilder, Conditions of use and the Data item lists.

The Explanatory Notes section of the Learning and Work, Australia, 2010–11 (cat. no. 4235.0) includes information on survey objectives, survey methods and design, data quality and interpretation, output data items, information about the availability of results and comparability with previous surveys.

ACCESSIBILITY

Microdata products are available to approved users. Users wishing to access the microdata should read the How to apply for Microdata web page, before applying for access through MiCRO. Users should also familiarise themselves with information available via the Microdata web pages.

A full list of available microdata can be viewed via the List of Expected and available Microdata.

Learning and Work 2010–11 can be accessed using TableBuilder.

Any questions regarding access to microdata can be forwarded to microdata.access@abs.gov.au or phone (02) 6252 7714.

Data Quality (Technical Note)

TECHNICAL NOTE

RELIABILITY OF THE ESTIMATES

1 As the estimates in this publication are based on information obtained from a sample of persons, they are subject to sampling variability. That is, the estimates may differ from those that would have been produced had all persons been included in the survey.

2 One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of persons was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all persons had been surveyed, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

3 Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

$$RSE\% = \left(\frac{SE}{estimate} \right) \times 100$$

4 RSEs for all estimates have been calculated using the Jackknife method of variance estimation. This involves the calculation of 30 'replicate' estimates based on 30 different sub samples of the obtained sample. The variability of estimates obtained from these sub samples is used to estimate the sample variability surrounding the estimate.

5 The Excel spreadsheets (in Downloads) contain all the tables produced for this release and the calculated RSEs for each of the estimates.

6 Only estimates (numbers or percentages) with RSEs less than 25% are considered sufficiently reliable for most analytical purposes. However, estimates with larger RSEs have been included. Estimates with an RSE in the range 25% to 50% should be used with caution while estimates with RSEs greater than 50% are considered too unreliable for general use. All cells in the Excel spreadsheets with RSEs greater than 25% contain a comment indicating the size of the RSE. These cells can be identified by a red indicator in the corner of the cell. The comment appears when the mouse pointer hovers over the cell.

CALCULATION OF STANDARD ERROR

7 Standard errors can be calculated using the estimates (counts or percentages) and the corresponding RSEs. For example, Table 1 shows that the estimated number of persons aged 15–64 years who were employed full-time was 7,993,900. The RSE corresponding to this estimate is 1.0%. The SE (rounded to nearest 100) is calculated by:

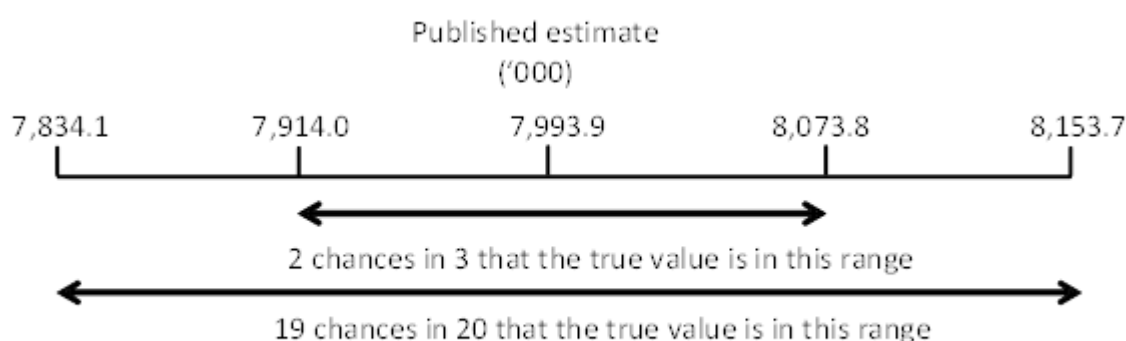
SE of estimate

$$= \left(\frac{RSE\%}{100} \right) \times \text{estimate}$$

$$= 0.01 \times 7,993,900$$

$$= 79,900$$

8 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 7,914,000 to 8,073,800 and about 19 chances in 20 that the value will fall within the range 7,834,100 to 8,153,700. This example is illustrated in the diagram below:



PROPORTION AND PERCENTAGES

9 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y:

$$RSE \left(\frac{x}{y} \right) \approx \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

10 As an example, using estimates from Table 1, of the 7,993,900 persons aged 15–64 years who were employed full-time, 69% or 5,505,200 persons had one or more non-school qualifications. The RSE for this estimate is 1.5% and the RSE of the estimated number of persons aged 15–64 years who were employed full-time is 1.0%. Applying the above formula, the RSE of the proportion is:

$$RSE = \sqrt{[(1.5)]^2 - [(1.0)]^2} = 1.1\%$$

11 Therefore, the SE for persons aged 15–64 years who had one or more non-school qualifications and were employed full-time, as a proportion of persons aged 15–64 years who were employed full-time, is 0.8 percentage points (=69.0×(1.1/100)). Hence, there are about two chances in three that the proportion of persons aged 15–64 years who had at least one non-school qualification and were employed full-time is between 68.2% and 69.8% and 19 chances in 20 that the proportion is within the range 67.4% to 70.6%.

DIFFERENCES

12 The difference between two survey estimates (counts or percentages) can also be calculated from published estimates. Such an estimate is also subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x - y) \approx \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

13 While this formula will only be exact for differences between separate and uncorrelated characteristics or sub populations, it provides a good approximation for the differences likely to be of interest in this publication.

SIGNIFICANCE TESTING

14 A statistical significance test for any comparisons between estimates can be performed to determine whether it is likely that there is a difference between corresponding population characteristics. The standard error of the difference between two corresponding estimates (x and y) can be calculated using the formula shown above in the Differences section. This standard error is then used to calculate the following test statistic:

$$\left(\frac{x - y}{SE(x - y)} \right)$$

15 If the value of this test statistic is greater than 1.96 then there is evidence, with a 95% level of confidence, of a statistically significant difference in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations with respect to that characteristic.